Remarks/Arguments:

Amendments

Claims 1 and 15, the only independent claims in the application, have each been amended to recite that the ionic liquid has a melting point less than 50°C. Claim 2 has been amended to recite the language used in claim 1. Support for this amendment is found in original claim 1. Claims 9, 10, 14, and 19 have each been amended has a melting point less than 20°C. Support for these amendments is found on page 5, lines 5-8. Claims 5, 9, 10, 12, 13, and 14, have been amended to change dependency. Support new claims 21-23 is found on page 5, lines 5-8. Support for new claim 24 is found in original claim 15. It is submitted that no new matter is introduced by these amendments and new claims.

Rejection under 35 USC 112, second paragraph

Claim 13 was rejected for failing to particularly point out and distinctly claim the subject matter that applicants regard as the invention. It particular, it was asserted that claim 13 had the same scope as claim 4. Claim 13 has been amended to change its dependency. It is submitted that this ground for rejection has been overcome.

Rejection under 35 USC (a) or (e)

Claims 1-20 were ejected as anticipated by Shimazu, U.S. Patent 6,593,055 ("Shimazu"). This rejection is respectfully traversed.

Shimazu discloses multi-layer thermally imageable elements. Shimazu, Abstract. The elements contain a top layer, an absorber layer that contains a photothermal conversion material, an optional underlayer, and a substrate. *Id.*

Claim 1 and claim 15, the only independent claims in the application, each recite that "the top layer comprises a binder and an ionic liquid." In addition, claims 1 and 15, the only independent claims in the application, have each been amended to recite that the ionic liquid has a melting point less than 50°C. These limitations are not disclosed by Shimazu.

Further, the Office asserts that Shimazu discloses top layers comprising the binder polymers set forth in the instant claims and dissolution inhibitors. Office action, page 3, lines

7-9. However, Shimazu does not disclose the binder polymers set forth in the instant claims and in combination with dissolution inhibitors. Column 3, line 61, to column 2, line 4, disclose useful polymeric materials for the top layer. In Examples 1-4, for example, the binder in the top layer is poly(methyl methacrylate), but no dissolution inhibitor is present. Column 5, lines 14-20, discloses that the dissolution inhibitors are used in combination with phenolic resins, particularly novolac resins. Neither phenolic resins nor novolac resins are among the binders recited either in claim 1 or in claim 15, the only independent claims in the instant application.

Anticipation requires that each and every limitation of the claim be disclosed, either expressly or under principles of inherency, in a single prior art reference. *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999); See, also MPEP § 2131. Absence from the reference of any claimed limitation negates anticipation. *Rowe v. Dror*, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). Therefore, the rejection of claims 1-20 as anticipated by Shimazu should be withdrawn because the limitations discussed above are not disclosed by Shimazu.

Rejection under 35 USC 103(a)

Claims 1-20 were rejected as unpatentable over Shimazu. For the following reasons, this rejection is respectively traversed.

As described above, Shimizu does not disclose the binder polymers set forth in the instant claims and dissolution inhibitors in combination with each other. In the Examples, poly(methyl methacrylate), one of the binders recited in the instant claims, is used in the top layer without a dissolution inhibitor. Shimizu discloses dissolution inhibitors in combination only with phenolic resins, particularly novolac resins. Neither phenolic resins nor novolac resins are among the binders recited either in claim 1 or in claim 15, the only independent claims in the instant application. Thus, nothing in Shimizu discloses or suggests the use of the binder polymers set forth in the instant claims with imidazolium, pyridinium, or tetraalkyl ammonium salts.

The Office has not made the *prima facie* case. Nothing in Shimizu discloses or suggests the use of the binder polymers set forth in the instant claims with imidazolium, pyridinium, and tetraalkyl ammonium salts. The rejection of 1-20 as unpatentable over

Shimazu should be withdrawn.

Further, Shimazu teaches that

> Phenolic groups impart aqueous alkaline developer solubility to the top layer and are also believed to form a thermally frangible complex with the dissolution inhibitor.

Shimazu, column 4, lines 23-26 (emphasis added).

Shimazu teaches that a specific interaction between the dissolution inhibitor and phenolic hydroxyl groups is responsible for thermal imaging. The person of ordinary skill in the art, having the advantage of the teachings of Shimazu, would not be motivated to use a compound containing an imidazolium, pyridinium, or tetraalkyl ammonium group with anything other than a binder that contained phenolic hydroxyl groups. Thus, there is no motivation for the person of ordinary skill in the art to modify the disclosure of Shimazu in the manner suggested by the Office. For this additional reason, the rejection of 1-20 as unpatentable over Shimazu should be withdrawn.

Still further, the art teaches that ionic liquids are solvents. *See*, for example, Olsen, U.S. Patent 6,586,166, column 1, lines 66-67 ("Ionic liquids have been generally disclosed for use as solvents for a broad spectrum of chemical processes."); *see also*, "Ionic Liquids: Solvents for the 21st Century," M. J. Earle, The Quill Centre, The Queen's University of Belfast, 2001, pgs. 1-17. As discussed in the instant specification, image formation depends on the fact that the imaged regions are removed by a developer and unimaged regions are not removed by a developer. *See*, for example, specification, page 1, lines 18-28. Thus, the person of ordinary skill in the art would not add a solvent to the imageable compositions of Shimazu. Because the teachings of the art would lead the person of ordinary skill in the art away from the invention, the rejection of 1-20 as unpatentable over Shimazu should be withdrawn.

Conclusion

It is respectfully submitted that the claims are in condition for immediate allowance and a notice to this effect is earnestly solicited. The Examiner is invited to phone applicants'

attorney if it is believed that a telephonic or personal interview would expedite prosecution of the application.

Respectfully submitted,

Bruce M. Monroe
Registration No. 33,602

BMM/jea

Dated: February 18, 2005

RATNER & PRESTIA
P.O. Box 1596
Wilmington, DE 19899
(302) 778-2500
FAX: (302) 778-2600

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on: February 18, 2005

Juliet E. Abbott

W:\KPG\5082\US\amend01.doc